

ABSTRACT OF THE DISCLOSURE

5 A system and method for transferring information at a fast rate between add-in cards in a rack mount system are described. In one embodiment, the invention allow all the add-in cards within the rack mount system to be interconnected. All the main cards within the rack mount system connect to a switch card using point-to-point differential copper pairs. All communication over these differential copper pairs use a messaging protocol that provides a messaging protocol destination address that is used to route the information to the intended destination main card. The messaging protocol may be the Ethernet protocol. In an alternative embodiment, data redundancy is provided by having two switch cards in the rack mount system. A particular main card transmits one set of information to the first switch card and a second set of information (that is identical to the first set of information) to the second switch card. The first switch card routes the first set of information to a particular one of the main card that is the intended destination and the second switch card routes the second set of information to the destination main card (i.e., the first switch card and the second switch card transfer the first set of information and the second set of information to the same destination main card). The destination main card uses the information that is first-to-arrive but if the information that is first-to-arrive has an error, then the later-to-arrive information is selected for use. The point-to-point differential copper pairs between the main cards and the one or more switch cards are referred to as a switched Ethernet interconnect. The switched Ethernet interconnect may be integrated within the mid-plane or using external cables.